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Sub-E1

11. (Twice Amended) A local clean equipment having installed therein a chemical filter for trapping at least one of organic substances and inorganic substances and also having installed therein an air filter for trapping suspended particulate substances in the air, said air filter being installed downstream of said chemical filter, characterized in that an air filter according to Claim 27 is installed as said air filter.

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12. (Amended) A method for manufacturing semiconductors, wherein a silicon wafer for said semiconductor is processed in at least one of a clean room and a local facility having an air filter as defined in Claim 26.

13. (Amended) A semiconductor device made by processing a silicon wafer in at least one of a clean room and a local facility having an air filter as defined in Claim 26.

Please add claims 18-28 as follows:

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18. (New) A method for manufacturing a filter medium for an air filter comprising a step of forming a non-woven fabric by binding fibers by a binder, characterized in that:

said binder having its chief ingredient of a polymer dispersion having a copolymer of a hydrophilic monomer and a hydrophobic monomer dispersed in water,

said polymer dispersion obtained by dispersing said copolymer in water after obtaining said copolymer by a polymerization step of bulk polymerization or solution polymerization,

wherein in said polymerization step, a hydrophobic organic peroxide of methyl ethyl ketone peroxide, cyclohexanone peroxide, di-t-butyl peroxide, t-butyl- α -Cumyl peroxide, di- α -Cumyl peroxide, di-isobutyl peroxide, dilauroyl peroxide, dibenzoyl peroxide, 2,2-bis(t-butyl peroxy) butan, t-butyl peroxy acetate, t-butyl peroxy pivalate, bis(2-ethylhexyl) peroxy bicarbonate, or bis(2-ethoxy ethyl) peroxy bicarbonate is used as a polymerization initiator, and

wherein the use of said air filter is the manufacture environment of a semiconductor device.

19. (New) The method for manufacturing a filter medium for an air filter according to claim 18, wherein said hydrophobic organic peroxide is diluted by one of a hydrocarbon and a phthalate ester plasticizer having a molecular weight of at least 400.

20. (New) The method for manufacturing a filter medium for an air filter according to claim 18, wherein volatile organic substances are removed from a mixture including said copolymer and said volatile organic substances obtained by said polymerization step by vacuum suction.

21. (New) A method for manufacturing a filter medium for an air filter comprising a step of forming a non-woven fabric by binding fibers by a binder, characterized in that:

said binder having its chief ingredient of a polymer dispersion having a copolymer of a hydrophilic monomer and a hydrophobic monomer dispersed in water,

said polymer dispersion obtained by a polymerization step of dissolving the hydrophilic monomer in water, adding the hydrophobic monomer to this water solution and dispersing said hydrophobic monomer in said water solution, and adding a polymerization initiator to form said copolymer,

wherein in said polymerization step, a hydrophilic organic peroxide of cumen hydroperoxide, 2, 5-dimethylhexan-2, 5-hydroperoxide, or succinic acid peroxide is used as a polymerization initiator, and wherein the use of said air filter is the manufacture environment of a semiconductor device.

22. (New) The method for manufacturing a filter medium for an

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air filter according to claim 21, wherein volatile organic substances are removed from said polymer dispersion obtained by said polymerization step by any one treatment of vacuum suction, aeration, nitrogen purging, and steam injection.

23. (New) A filter medium for an air filter manufactured by a method for manufacturing a filter medium for an air filter according to claim 18.

24. (New) A filter medium for an air filter manufactured by a method for manufacturing a filter medium for an air filter according to claim 21.

25. (New) A filter medium for an air filter having fibers bound together to form a non-woven fabric, characterized in that:
wherein the use of said air filter is the manufacture environment of a semiconductor device, and
wherein after a sample cut out from said filter medium is dipped for one week in a specified amount of ultrapure water, the kinds and amounts of ion that is eluted in the ultrapure water from said sample are analyzed by the ion chromatography, and each eluted amount of ammonium ion, chlorine ion, and sulfuric acid ion from said sample by the canalization is $72\mu\text{g}$ or less per 1g of said sample.

26. (New) An air filter comprising:
a filter medium for an air filter according to claim 23; and
a frame and a sealing material incapable of generating gaseous organic substances,
wherein said air filter is assembled in a space free of gaseous organic substances.

3 21. (New) An air filter comprising:
a filter medium for an air filter according to claim 24; and

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substances,
a frame and a sealing material incapable of generating gaseous organic
substances,
wherein said air filter is assembled in a space free of gaseous organic
substances.

28. (New) ~~An air filter comprising:~~
~~a filter medium for an air filter according to claim 25; and~~
~~a frame and a sealing material incapable of generating gaseous organic~~
substances,
wherein said air filter is assembled in a space free of gaseous organic
substances.
